



## Hamster Anti-Mouse CD81/TAPA-1

Cat. No.	Form	Quantity
1825-01	Purified (UNLB) Antibody	0.5 mg
1825-02	Fluorescein (FITC) Conjugate	0.5 mg
1825-08	Biotin (BIOT) Conjugate	0.5 mg
1825-09	R-phycoerythrin (R-PE) Conjugate	0.1 mg
1825-14	Low Endotoxin, Azide-Free (LE/AF)	0.5 mg

### DESCRIPTION

**Clone** 2F7  
**Ig Isotype** Armenian Hamster IgG, group 3,  $\kappa$   
**Immunogen** Mouse epithelial cell line PAM212  
**Specificity** Mouse CD81 (Mr 25 kDa), a member of the transmembrane 4 integral membrane protein family

CD81/TAPA-1 is an integral membrane protein expressed on a variety of cell types, and has a high degree of sequence homology between human and mouse.<sup>1</sup> CD81 is expressed on thymic stromal cells where it plays an important role in the transition of  $\gamma\delta^+$  T cells to more mature T cells with  $\alpha\beta$  T cell receptors.<sup>2</sup> Immunohistochemical staining has revealed that its expression is localized to the subcapsular region of the thymus and, specifically, on cells that have distinct clustering patterns. It has been speculated that the ligand for CD81 is the pre-T cell receptor, which is composed of a TCR  $\beta$  chain and glycoprotein pT $\alpha$ .<sup>2</sup> The monoclonal antibody 2F7 can block thymocyte interaction with CD81 *in vitro*. ←

### RESEARCH APPLICATIONS

- Identification and enumeration of CD81<sup>+</sup> cells by flow cytometry<sup>2</sup>
- Immunohistochemistry (frozen sections)<sup>2</sup>
- Immunoprecipitation<sup>2</sup>
- *In vitro* blocking of thymocyte interactions with CD81<sup>2</sup>

### CHARACTERIZATION

To insure lot-to-lot consistency, each batch of product is tested by flow cytometry to conform with the characteristics of a standard reference reagent.

### WORKING DILUTIONS

**Flow Cytometry:**

Fluorescein conjugate	$\leq 1 \mu\text{g}/10^6$ cells
Biotin conjugate	$\leq 1 \mu\text{g}/10^6$ cells
Phycoerythrin conjugate	$\leq 0.2 \mu\text{g}/10^6$ cells

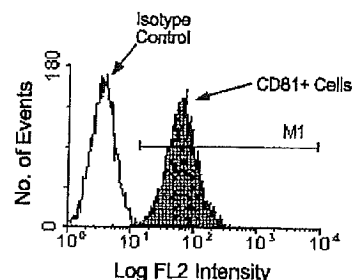
**Other Applications:** Since applications vary, you should determine the optimum working dilution of the product that is appropriate for your specific need.

***For Research Use Only. Not for Diagnostic or Therapeutic Use.***

## IMMUNOFLUORESCENT STAINING

**Product:** Hamster Anti-Mouse CD81-R-PE  
**Cat. No.** 1825-09  
**Amount Used:** 0.1 µg/10<sup>6</sup> cells

The A20 cell line, a murine B cell lymphoma, was stained with hamster anti-mouse CD81-R-PE or hamster IgG-R-PE isotype control, following which the cells were analyzed for the expression of CD81 on a FACScan™ flow cytometer (BDIS, San Jose, CA).



## HANDLING AND STORAGE

- The purified (UNLB) antibody is supplied as 0.5 mg of purified immunoglobulin in 1.0 mL of 100 mM borate buffered saline, pH 8.0. *No preservatives or amine-containing buffer salts added.* Store at 2-8°C.
- The fluorescein (FITC) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The biotin (BIOT) conjugate is supplied as 0.5 mg in 1.0 mL of PBS/NaN<sub>3</sub>. Store at 2-8°C.
- The R-phycoerythrin (R-PE) conjugate is supplied as 0.1 mg in 1.0 mL of PBS/NaN<sub>3</sub> and a stabilizing agent. Store at 2-8°C. **Do not freeze!**
- Protect conjugated forms from light. Each reagent is stable for the period shown on the bottle label if stored as directed.
- The low endotoxin, azide-free (LE/AF) antibody is supplied as 0.5 mg purified immunoglobulin in 1.0 mL of PBS. **Aliquot and store at or below -20°C.**
- Protect conjugated forms from light. Aliquot and freeze the low endotoxin, azide-free product at -20°C immediately upon receipt. Each reagent is stable for the period shown on the bottle label if stored as directed.

## WARNING

Reagents contain sodium azide. Sodium azide is very toxic if ingested or inhaled. Avoid contact with skin, eyes, or clothing. Wear eye or face protection when handling. If skin or eye contact occurs, wash with copious amounts of water. If ingested or inhaled, contact a physician immediately. Sodium azide yields toxic hydrazoic acid under acidic conditions. Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or copper plumbing.

## REFERENCES

1. Andria, M.L., et al. 1991. *J. Immunol.* 147:1030.
2. Boismenu, R., M. Rhein, W.H. Fischer, and W.L. Harven. 1996. *Science* 271:198.

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